NERVE CENTER OF FRENCH ARMIES IS IN TRANQUIL NOOK

General Joffre's Headquarters Are Far From Noise and Din of Battle

OFFICERS HARD AT WORK THROUGH DAY AND NIGHT

Few Come and Go, Vast Business Being Conducted byy Wires to All Points

General Joffre's Headquarters (by mail to New York, November 30.)—The nerve center that moves more than 2,000,000 men is in a village school house seventy miles behind the firing lines.

The rare observer who is permitted to learn its whereabouts and approach, finds an absolute contrast between the tranquillity here and the intense action near the trenches. No cannon, machine gun or rifle fire can be heard here.

The commander-in-chief co-ordinates his information and arrives at his decisions, not only far from the disturbance of actual conflict, but in the depth of the country away from the first and second line of reserves, the incessant movement of motor transport and the dislocation of civil life. An air of repose surrounds the headquarters, but life is intense here also; a 24-hour day of study and acts of judgment.

"What young colonels you have here," remarked the correspondent to a member of the staff.

Work Long Hours

"They are the men of the future," he replied. "Some of these young colonels are at their desks at 5 o'clock in the morning and go to their quarters in pleasant private dwellings nearly at ten at night. They are relieved by others and work goes on throughout the night."

General Joffre has six subordinate officers in the six armies into which the field forces are divided. The six generals commanding these armies, Pau, Foch, Dalstein, Franche D Esperray, Castelnau, Manoury, each with his general staff, are connected by telegraph and telephone wires with headquarters.

General Joffre often talks over situations by telephone, receives suggestions and gives orders which are confirmed and recorded by telegraph. He is also in direct and frequent communication with Field Marshal French and Belgian headquarters and with Bordeaux and Paris.

Single Sentinel on Guard.

A single sentinel paces in front of the entrance. Except for a few guards, there are no soldiers in General Joffre's village except the youngish men on his staff, picked for their talents from among the 50,000 officers of France.

The roads of approach are watched by gendarmes and it is impossible to enter the place except by a pass signed either by the chief of General Joffre's staff or by one of the few persons in the military administration authorized to sign such a pass.

The headquarters of a commanding general used to be distinguished by the orderlies and horses in front and his rank could be pretty well determined by their number. Now it is the number of motorcars.

Many Autos at Hand

Some fifteen or twenty lone high-power runners are usually lined up in the playground of the school house. There is no tooting of horns. The cars come and go quietly and swiftly. The representative of the British war office, Colonel Yarde-Buller, arrives, or the Russian military agent, or an officer from the immediate front or a delegate from the government, but for the most part, there is little coming and going. The vast business is transacted by wire. The meaning and significance of it all can only be determined by events remote from here.

General Joffre, when he goes to the headquarters of one of the armies, has with him an automobile fitted as an office. It looks, inside, very much like the little drawing rooms attached to steamer cabins. A writing desk lets down from one end. Two divans are along the sides and there are convenient devices for docketing the papers.

General Joffre, himself, appears in grave, calm mood and in vigorous health.

HIGH EXTRACTION AT PAHALA MILL

Alonzo Gartley, consulting engineer of C. Brewer & Co., stated yesterday that the Pahala mill record for the week ending December 12 showed an average extraction of 98.11 per cent. This increase in extraction is due entirely to the installation of James Ogg's improvement in mill roll grooving, Mr. Gartley said:

The feed roller of all four mills has the Maeschaert groove. All the back rolls of the four mills and the top rolls of mills numbers one and two have the Ogg grooving.

The full record for the week was as follows: Extraction, 98.11; extraction ratio, 13; fiber in cane, 14.30; sucrose in cane, 11.70; moisture in bagasse 39.1; sucrose in bagasse .92; dilution 37 per cent; cane per hour, 41 tons. In every one of these items there has been material improvement since the Ogg groove was installed.

FEDERAL REPORTER ON SITUATION

Sales Slow, Strength In Future Sales Depends On Foreign Demand

The Federal Reporter of December 4, says that the firmness of two weeks before, due largely to the expectation that there would be further buying of refined sugar by France, "has in the absence of such buying given way to an easier market and further concessions have been made."

There was a sale of 15000 bags Cuba ex store New York December 2 at 3.95 to the McCahan refinery of Philadelphia. December 4, Arbuckle Bros. bought two lots, prompt shipment, 7,000 and 10,000 bags, down to 3.89c. duty paid. This is a decline of 15 [illegible] since November 24. Sellers are holding for 2¾ c, c.&f. for January, February and March shipments and 3c for April, May. The Reporter says: "So far neither speculators nor refiners have shown a disposition to purchase anything but the nearby positions. The fact that the weather in Cuba is not favorable for grinding is encouraging to sellers and it seems a foregone conclusion now that comparatively little new crop sugars will be shipped during December, probably not over 20,000 to 25,000 tons maximum and up until the middle of January, the Cuban production will be very much less. This, together with the purchases that have been made by England for January to March shipment should tend to sustain values by keeping early sugars from pressing.

"On the other hand present prices are very profitable and planters have always shown a desire to sell a certain quantity of early sugars. With so many uncertainties before us next year the market will at all times bear most careful watching.

"Willett & Gray estimate the total stocks in the U. S. and Cuba at 261,290 tons, an increase of 153,518 tons over last year.

"Cuba.—Three centrals are now at work. The weather lately has again been rainy and consequently unfavorable for grinding. As a result the plantations that are now at work are unquestionably getting very poor yields and it is doubtful whether, aside from getting their organization together, it is paying them to run.

"The ouster proceedings instituted by the State of Louisiana against the American Sugar Refining Company have been argued in the lower courts and a decision is expected in the next few weeks.

"Meanwhile the American S. R. Co. have not bought any of the Louisiana crop and something like eighty per cent of the receipts have been sent into the warehouse unsold, with the hope on the part of the Louisiana Planter that something will develope in the future that will enable them to get very much higher prices."

The Reporter states that about 120,000 tons out of the 150,000 tons Louisiana crop will be warehoused. About one half of this will have to be refined later, but, as banking facilities have been provided, it is unlikely that any of this sugar will go to market for some months to come.

Fields Clean and Equipment Tuning Up For Another Bumper Crop

John T. Moir, manager of Onomea Sugar Company, in his report for November, 1914, states that "the 1915 crop is still booming along. The cane is tasseling profusely, the flowering being heavier than in previous years. Some of the cane has been knocked down and flattened by heavy rains and high winds. We are not getting much sunshine so far to ripen the cane, but it may come later on."

Cane Luxuriant, Weeds Checked

The crop of 1916 is in very good condition, but backward. The tremendous rains of the last ten months seriously interfered with field work other than the harvesting. "We are now getting the best of the weeds," Mr. Moir states, which indicates that since the close of the grinding season every effort has been made to bring all of the field work up to the usual Onomea standard of efficiency.

"Work in the mill and boiling house is progressing slowly," he says. "The last of our machinery shipments from Honolulu arrived December 9. The brick work and boiler setting will be finished this week.

"The Paukaa flume is almost connected and the tunnel through the government road is about finished. The Piihau flume has been rebuilt clear up to the water head. All the flume lines on the plantation have been or will be renovated before the beginning of the 1915 grinding season early in January." Manager Moir reports that the November rainfall totaled 20.63 inches.

Sunshine Would Make Sugar

The 1914 crop at Onomea fouted up 19,600 tons. The estimate for 1915 has been placed at 18,000 tons on a conservative basis. If the weather changes and the windward plantations get their share of sunshine during the spring months when the cane is ripening, this estimate may be considerably exceeded. The growth of the cane has been luxuriant.

WASTE MOLASSES GOOD STOCK FEED

Can Be Easily Handled If Properly Mixed With Other Feedstuffs

Molasses makes a valuable stock feed for cattle and plantation work stock provided it can be properly incorporated with other feeds to obviate the mechanical difficulties of handling it. At Fuunene molasses is mixed with barley, algaroba meal and bagasse for work stock and with bagasse, corn meal and alfalfa meal for cow feed.

L. Weinzheimer, at the meeting of the Planters' Association, described the Searby method of preparing these feeds, as follows:

By a system of screens the pithy part of the bagas e coming from the mills, that will pass a half-inch mesh, is separated from both the coarse bagasse and fine dust, and is conveyed by a Sturtevant blower to an indirect heat flue-gas dryer where the moisture is reduced to less than one per cent. From the dryer it is conveyed by another blower to a storage bin.

Algaroba beans are dried and reduced to meal with a Jeffery swing hammer pulverizer, and the meal stored in a bin.

Waste molasses is boiled to amount 50 Beaume and stored in tanks.

Whole barley is crushed in an ordinary barley mill, and stored for use.

The mixture is made in the following proportions:

Dried bagasse for roughage	57 lbs.
Molasses	60 lbs.
Algaroba bean meal	150 lbs.
Barley	135 lbs.

An intimate mixture of all the ingredients of this stock food is effected in a standard fertilizer mixer. From this mixed the food is elevated directly into small gondola cars holding about four tons. The cars are hauled to the stables where they serve as storage bins until empty, when they are returned at once to be refilled. This method of handling the feed cuts out quite a large container account.

The mixture used for cow feed is:

Dried bagasse	100 lbs.
Molasses	100 lbs.
Alfalfa meal	62 lbs.
Corn meal	100 lbs.

Both the corn and the alfalfa are reduced to meal with a Jeffery swing hammer pulverizer. The corn is put through the machine on the cob and the whole reduced to meal.

Two men working ten hours per day mix four tons of feed.

Less Maceration Water Required Where This Invention Is Used In Mills

Practical mill men state that the Ramsey macerating scraper is an improvement that works to good advantage. The main advantage in the macerating scrapers, is that water is applied before the bagasse has had an opportunity to expand and allow the cells to become filled, or partially filled, with air.

This is accomplished by the use of two macerating scrapers, which receive the bagasse as it is ejected from the top and discharge rollers and continue the exercise of mechanical pressure upon the bagasse as it leaves the mill. By this means the air is excluded and water is simultaneously forced under pressure into the mechanically-pressed traveling stream of bagasse in such a manner that the water thoroughly permeates the cellular structure of the bagasse before it comes in contact with the atmosphere. In this way the amount of sugar absorbed is increased. A substantially smaller amount of water than is ordinarily employed will absorb a greater amount of sugar.

In the old-fashioned method of spraying water on the bagasse, the water cannot thoroughly permeate the air-filled cells of the bagasse and consequently the action of the water is largely superficial.

The following experiment illustrates the difference in results attained by the two methods: Pass a dry sponge through a shower similar to the spray usually applied in macerating by the old-fashioned method, and it will be found that the sponge is wet on the outside but not on the inside. Now compress the dry sponge in the hand, and release it while immersed in water and the sponge will be thoroughly saturated. The main point of difference is that in the new method the water comes in contact with the dry bagasse before it has reached the air, while in the spraying method the dry bagasse is exposed to the air before the water is applied.

A FERTILIZER BOOKLET.

Norman Watkins, manager of the Hawaiian Fertilizer Company, has issued an attractive twenty page leaflet on the use of fertilizers in semi-tropical agriculture. Brief directions are given as to the quantity and method of application of commercial manners to increase the yields of cane, vegetables, rice, pineapples, corn, bananas, coffee, fruit trees and taro. The booklet recommends continuation of the usual Hawaiian practise of putting the fertilizer as near the surface of the soil as possible. The upper soil layers are the richest and that is where the feeding roots of plants are most highly developed. Plowing fertilizers deep into the soil is a wasteful practise, at least in this part of the world.

CUBAN PRESIDENT BUYS PLANTATION

Menocal To Have 150,000-Ton Mill—Other New Projects Forming

The Havana correspondent of the Louisiana Planter reports that many centrals are installing new and improved mill and boiling house machinery. President Menocal is reported to have purchased a large tract of land in the eastern end of the island. In partnership with Dr. E. S. Agramonte he will plant cane for a new 150,000-ton mill. Many other new plantations are being organized.

Cuban Planters Organizing

The Agrarian League is rapidly extending its member hip all over Cuba, the new membership including not only colonos but managers, owners and company officials. He says:

"From what can readily be seen of conditions here it isn't going to be any easy matter to effect a complete organization of the colonos all over the island, but the good that might come from even an incomplete organization is worth a lot of hard work by the officials of the Agrarian League, or any other body connected with the sugar industry. That their first real efforts have met with the success that they undoubtedly have, augurs well for later labors and it seems that they are going about the matter in the proper way in attempting now to form these local associations rather than try to include all the colonos in the central organization. Likewise it is a good sign that these new organizations have declared themselves as non-political and we hope to see the movement prosper.

Roasts Department of Agriculture

"Talking with Professor Crawley of the Santiago de las Vegas Experiment Station some days ago, we were told that he has sent down to Colon several of the most promising varieties of canes that have been under observation at the central station and that these will be tried out there. Some experiments of a co-operative nature are also being begun on a tract of land that has been turned over by the owners of the Ingenio Santa Gertrudis, but even with this it certainly seems that the department of agriculture should find time to devote more attention to the many problems that affect the cultivation of cane here and which as yet have scarcely been touched.

"Along other lines the work that is being carried on at the central experiment station and at the agricultural schools throughout the island is raising the general standard of agricultural methods in a marked degree, but when it is considered that the cultivation of cane and the manufacture of sugar not only overshadow any other single industry here but all others combined, it is difficult to understand why the authorities have not devoted more attention to the experimental aspects of these industries.

Experts Are Wanted

There is no question of the usefulness of the work that is now being carried on in an effort to rid the island of hog cholera, of the wisdom of the recently issued quarantine against the importation of livestock that comes from localities suspected of the foot and mouth disease, or of the quarantine against the importations of citrus stock from localities where pests and diseases as yet unknown in Cuba occur—but since Noel Deerr left the employ of the department of agriculture, as far as we have been able to learn there is not a single employee of that branch of the government who gives his entire time—or even the greater part of his time—to the problems that the sugar planters need to have worked out for them; nor have we been able to learn that any efforts are being made to secure some one to take the place Mr. Deerr left vacant.

Market Depends On Further Development of Continental Demands For Refined

NEW YORK, December 2.—Reports received by the Federal Sugar Refining Company indicate that the situation of Europe as regards its sugar supply is becoming increasingly serious.

"Our advices from France," said an official of the Federal Company, "are that of 206 beet sugar factories there scarcely forty are running; and that it is doubtful whether France and Belgium together will be able to produce more than 250,000 tons of sugar this year. It is figured that France must make outside purchases approximating 250,000 tons. It has already bought 166,000 tons, leaving in the neighborhood of 100,000 tons still to be obtained. Probably New York refiners will get a good deal of this business.

"Owing to the danger of Italy and Holland replacing their supplies sold with Austrian or German sugars, it is expected that France will follow England's example and decree against further purchases from neutral countries that deal in belligerent sugars in this manner. This action ought naturally to mean more business for the American refiners."

GLUCOSE TRUST INVESTIGATION

Questionable Practises Unearthed By Attorney General's Department

According to the Louisiana Planter the United States government has instituted a suit against the Corn Products Refining Company under the anti-trust law and the hearing was held in the federal building at Chicago before Special Examiner Rowland W. Phillips this week. The government has instituted a number of these suits against various corporations that have combined to restrain trade, and the Corn Products Company, which has a well-organized propaganda to not only put "corn syrup" on the market, but has, from evidence brought to light, ruthlessly followed up all concerns that failed to make obeisance to its mandates and dictates.

The government subpoenaed Charles Pope this week to appear before the Examiner and offer his information and experience with the trust, which had tracked his business with determination, and so insidiously and persistently that he had to yield to its charm. Mr. Pope has since engaged in the sugar business in Riverdale, Illinois, where the government is not interfering at all directly, but where the tariff that has afflicted all sugar establishments has inoculated a serum into the financial veins that has threatened to impoverish and lay aside the entire sugar business. Mr. Pope was very frank in giving his information. He once had excellent establishments for the manufacture of glucose at Geneva and Venice, Illinois. Hundreds of men used to be employed in these places, and the factories were a great boon to the towns in which they were located.

Persecuted by Trust

While all seemed to go well on the surface underneath the owner of the plants was suffering persecution which came at intervals. The trust would come and depress the prices of products till ruination would stand night and day over the book accounts of the plant, and a temporary shut-down o' the plant would bring relief, the malady, however, appearing as soon as the factories were reopened. The fight was kept up for an indefinite time. Jesse Adkins, a special assistant to the attorney general, quizzed Mr. Pope on this matter and asked: "You eventually sold out, did you not?" To which Mr. Pope replied: "I received a certified check in payment."

S. P. Butler, vice-president of the Corn Products Refining Company, testified that Mr. Pope had received $3,000,000 for his business. In the cross examination it was brought out that the plants were worth only $300,000. Mr. Pope also added that he had fought the trust since 1897, when the Glucose Sugar Refining Company was organized. At that time the company was organized with $40,000,000. Since then it has been reorganized with a capital of $80,000,000.

Watered Stock

Henry Herget, another glucose man, testified before the Examiner that he had received $2,000,000 in 1902, when he sold out to the Illinois Sugar Refining Company. L. P. Best said that he had received $700,000 in 1897 for his plant in Davenport, Iowa. The government is attempting to show that the alleged trust had been throttling all competition, and did this by exorbitant prices and thereby gained nearly absolute control of the whole business as well as some refining interests.

THINK WAR WILL LAST TWO YEARS

LONDON, November 30.—A despatch to the Standard from Bordeaux says that French officers fix September, 1916 as the earliest date of the conclusion of hostilities, and forecast another six months' practically amounting to an armistice in which the terms of peace will be arranged.

"But," says the correspondent, "of what avail is the speculative side of the probable duration of the war. There are so many things to do yet. We can not begin to think until the Germans are driven out of France and Belgium. Any talk before that would be futile.

"They take a great deal of beating too. It is annoying to the French people who read English to absorb so much daily as to the 'routings' of the Germans so many times through cowardice and dread of cold steel. The French wounded tell a different tale, and are discouraged to think their victories over the Germans are so frequently called runaways. Disparaging the enemy in this way brings no glory whatever in defeating them.

"A French cavalry officer who has just returned with a splintered shoulder told me he was not at all sure that cavalry was much good in present day warfare. He had seen the battles in South Africa and knew the value of mounted infantry, and he was firmly convinced that the horse, except for purposes of transport and artillery, would prove a negligible quantity."

OFFICERS DESTROY UNFIT FOODSTUFFS

President Pratt Leads In Crusade On Maui—Condemn Goods Valued At $25,000

There is wailing and gnashing of teeth among the Japanese and pake merchants of Maui. A number of Portuguese storekeepers and more than one plantation store on the Valley Island is also mourning as a result of an unexpected visit of Dr. J. S. B. Pratt, president of the board of health, and A. W. Hansen, federal food commissioner and chemist, to that section of the Territory last week.

The two officials visited all the stores on the Island with the exception of those in the Hana district. They were in quest of foodstuffs unfit for consumption and which did not come up to the requirements of the pure food law. They found plenty of it; a conservative estimate places the value of the goods destroyed at twenty-five thousand dollars.

Condemned Goods Destroyed

The officers were accompanied by a squad of assistants. They would enter a store, examine canned goods and other articles of food offered for sale and wherever they found stock that did not come up to legal requirements burned or rendered it wholly unfit for sale consumption.

In many instances canned goods were found fermented and decayed; yet offered for sale to customers. About thirty barrels of salt salmon, absolutely unfit for food, was among the stock destroyed. In several instances so much of the stock of the smaller merchants was declared unfit for food, that they found their stock practically wiped out when the government officials finished their work.

Hundreds of cases of so-called French peas were destroyed. The test showed that they had been highly colored by treatment in a copper solution.

A quantity of goods also went into the scrap heap because the labels did not contain a statement as to the net weight of the contents.

Soda Water Stocks Suffer

Soda water establishments did not escape, the stocks of some being condemned because the label did not describe the character or quality of the contents, or because attached stoppers were used, which is against the regulations.

The work of inspecting the retail stores of the Territory has been under way for the past several months and many thousand dollars' worth of goods that have not come within legal requirements have been condemned or destroyed.

Merchants on Maui claim that most of the foodstuffs condemned there last week were purchased in Honolulu where it had been found impossible to dispose of them because of the unrelenting vigilance of the board of health department in preventing the disposal of articles of food in Honolulu which do not meet the requirements of the law.

The belated statement of campaign expenses of Abraham K. Haili, a defeated Bourbon candidate for the house of representatives from the West Hawaii section of the Territory, was received by the territorial secretary yesterday. Haili swore that it cost him an even $100 to get defeated November 3.

WAR OBSERAVTIONS BY ARMY OFFICERS

Indications Are Forts Are Being Reduced By Comparatively Small Siege Guns

WASHINGTON, November 28.—In common with the military observers of every other nation, United States army officers are watching with keenest interest the artillery development of the warring nations of Europe as disclosed upon the battlefields of Belgium and France. Every news despatch that mentions the great German guns is read closely and photographs are studied with greatest care; but so far nothing conclusive has been found to confirm the report that the Germans are placing their main reliance upon forty-two centimeter mobile howitzers.

American officers believe that the Germans have accomplished the destruction of opposing forts with standard eleven-inch howitzers and modern high explosives which are virtually the same for all nations. The key to German successes of this character, they say, lies in the thoroughness with which the work is done and the accuracy of their shooting with eleven-inch weapons.

Photographs of the forts before Liege, Namur, Antwerp and elsewhere in the war zone show turret forts completely wrecked by German fire. There is nothing to indicate, however, that the damage was inflicted by eleven-inch or even smaller shells, ordnance experts believe. The enormous destructive force of these shells has been well known ever since the fall of Port Arthur in the Japanese-Russian war.

The city was taken by the Japanese notwithstanding modern fortifications of the highest type; naturally stronger than any that have been assailed during the present war since the forts were located on high hills rendering turret protection against fire unnecessary. They were reduced by eleven-inch coast defense howitzers brought from the Japanese coast with great labor and mounted after the exercise of engineering skill of the highest order to get them over the rough ground and into place where they commanded the Russian fortresses. Once established behind nearby hills, absolutely safe from the fire of the Russian guns, the howitzers disposed of the enemy's boasted defenses with the same ease that the German guns have battered to pieces the Belgian forts.

American officers have studied with interest photographs of the Austrian mobile siege mortars. No scale has accompanied these pictures but comparison of the size of the men as shown in the pictures with the bore or breech of the weapon beside which they stand, indicates the guns to be not greater than the eleven-inch and in many instances even smaller.

Novel Transportation System

The most novel feature about these weapons is military eyes is the system of transportation employed by which the gun and its carriage are divided on two trucks equipped with rimmed wheels and special devices to distribute the enormous weight over as much road service as possible. The whole train is hauled by a traction engine propelled by steam or gasoline. Undoubtedly this has served to increase the mobility of the giant weapons; but officers are not satisfied that the necessity of carefully preparing the ground upon which the guns stand when discharged has been done away with. It is still a job for engineers to place these weapons and the long delay necessary to permit the emplacement of siege weapons, while a little reduced is still a factor in military operations.

The United States is not contemplating the construction of very large siege guns because the roads of the country are not suited to carry such enormous weights. The radius of action of the weapons would be limited to the immediate vicinity of a few of the larger cities or to a highway here or there that has been improved for a long distance. In the event of invasion it would be impossible to confine operations to territories best suited for defense and the guns would be virtually useless.

ENLISTED CANDIDATES FACE A YEAR'S WAIT

A recent communication from the office of the adjutant general of the army says that there are now no vacancies in the grade of second lieutenant in the line of the army available for the appointment of qualified enlisted men and under normal conditions there will be no such vacancies available after the appointment of the graduates of the 1915 class of the United States Military Academy.

For this reason, says the communication, no preliminary examination of enlisted candidates for commission will be held in January, 1915, as would ordinarily be the case. The adjutant general says, however, that should vacancies in the grade of second lieutenant in the line of the army remain to be filled after the appointment of the graduates of 1915, necessary steps will be taken at the proper time to protect the rights under the law of all enlisted applicants.

While this means that candidates for promotion from the ranks are doomed to disappointment next year, unless congress should provide for an increase of officers, it also means that there will be no appointments from civil life, as the vacancies remaining in the line on July 1 of each year, after the graduating members of the military academy class have been commissioned, are filled, first by appointment from the ranks and secondly by civilians including honor graduates of certain military schools.

Punahou academy is now enjoying its Christmas vacation; all examinations having been concluded on last Friday. All other schools, with the exception of Saint Louis, which closes next Wednesday, will close this coming Friday.